
INDEX

COLLOID JOURNAL

Volume 39, Numbers 1-6, 1977

1 2 3 4 5

COLLOID JOURNAL

Volume 39, Numbers 1-6, 1977

(A translation of *Kolloidnyi Zhurnal*)**A**

- Abarzhi, I. I. - 553
Abramina, E. V. - 534
Adamova, L. V. - 813
Ageeva, V. A. - 813
Aglemer'yan, T. Kh. - 452
Alvazyan, B. M. - 543
Alvazyan, O. M. - 538
Akulich, N. A. - 897
Aleinikova, I. N. - 11
Aleksandrova, E. M. - 690, 694
Aleksandrovich, Kh. M. - 861,
897
Alekseev, A. S. - 126
Alekseev, O. L. - 374
Al'shits, I. M. - 470
Al'tshuler, M. A. - 1000
Ananich, N. I. - 665
Andreeva, E. P. - 197, 425, 437,
630, 647, 715
Anisimov, B. F. - 454
Arbuzov, A. M. - 841
Aripov, É. A. - 864
Aristov, B. G. - 817
Arslanov, V. V. - 820
Artamonov, V. I. - 117
Atamanenko, I. D. - 329
Averbakh, K. O. - 109
Averbukh, M. Z. - 765
Avgul', N. N. - 287

B

- Babaev, Sh. T. - 1
Baikova, S. A. - 464
Bakanov, S. P. - 907
Bakeev, N. F. - 765
Baran, A. A. - 5, 202, 363,
369, 941, 1005
Barer, S. S. - 917, 921
Barkan, A. I. - 335, 464
Barmakova, T. V. - 287
Belavkina, N. S. - 660
Belyaeva, T. A. - 660
Belyakova, L. D. - 287
Belyi, V. A. - 464, 651
Bibik, E. E. - 102

- Bityukov, N. N. - 698
Bogomolova, E. P. - 347
Boiko, Yu. P. - 374
Bondarenko, N. F. - 207
Brekhunets, A. G. - 1030
Brodskaya, E. N. - 561, 569
Brunov, P. A. - 608
Bulavchenko, A. I. - 52
Bulgakova, M. V. - 112
Burova, D. K. - 425
Busol, T. F. - 844
Bychko, V. A. - 769
Bystrova, N. I. - 765

C

- Chalenko, N. S. - 102
Chalykh, A. E. - 517
Chashchina, O. V. - 310
Chekhovaya, I. N. - 363, 369
Chemodanov, D. I. - 531
Chernaya, V. V. - 464
Chernin, E. I. - 852
Chernin, V. N. - 890
Chernomaz, V. E. - 1066
Chertilin, B. S. - 965
Chertov, V. M. - 97
Chesha, I. I. - 189
Chistyakov, B. E. - 890
Chobanu, M. M. - 307
Churaev, N. V. - 176, 226, 351,
378, 406, 447, 548, 614, 665,
917, 921, 949, 975, 1008, 1012,
1021
Chuvaev, V. F. - 881

D

- Dadugina, N. G. - 287
Dagaev, V. A. - 332
Dashevskii, M. I. - 117
Davidan, R. G. - 706
Dayyodov, A. T. - 658
Deinega, Yu. F. - 1051
Dembovskaya, Yu. V. - 261
Denisova, L. V. - 293, 476
Deryagin, B. V. - 11, 267, 383,
584, 598, 614, 917, 926, 933,
941, 997

- Dmitruk, M. O. - 866
Dontsova, É. P. - 660
Drobosyuk, V. M. - 111, 300
Dubyaqa, E. G. - 112, 835
Dukhin, S. S. - 17, 231, 267,
553, 598, 902, 926
Dudkina, L. M. - 1005
Dzhabarov, K. A. - 297
Dzis'ko, V. A. - 183

E

- Efanov, L. N. - 452
Efremov, I. F. - 986
Efremov, V. N. - 117
Egorenkov, N. I. - 838
Egorov, A. K. - 513
Eliseeva, V. I. - 479, 748
Él'tekov, Yu. A. - 303
Emel'yanchenko, V. G. - 454
Ermakova, T. P. - 665
Ermilov, P. I. - 126
Erokhina, L. L. - 872, 875
Erokov, S. B. - 660
Ershova, G. F. - 1008
Estrela-Lopez, V. R. - 1051

F

- Fainerman, V. B. - 85, 91, 736
Fedorova, G. M. - 713
Fedoseeva, N. P. - 1055
Fedoseeva, V. I. - 894
Fel'dman, Yu. D. - 719
Fenelonov, V. B. - 183
Filatov, A. O. - 1059
Filatova, E. V. - 1059
Freidin, A. S. - 517, 852
Fridman, I. D. - 326
Fridriksberg, D. A. - 546, 971

G

- Gaevoi, G. M. - 105
Gaidukov, M. N. - 991
Galimov, Zh. F. - 832
Gamol'skil, A. M. - 123
Gavrilov, V. Yu. - 183

Gel'man, L. A. - 189
Gerasimov, Yu. V. - 291
Germasheva, I. I. - 105
Gianik, T. - 1037
Gol'dade, V. A. - 651
Gol'din, G. S. - 109
Golikov, A. M. - 991
Golosman, E. Z. - 117
Golovko, L. V. - 578
Golubkov, A. G. - 470
Gorokhovat-skaya, N. V. - 329
Grebenyuk, V. D. - 17, 682, 1005
Grechenko, A. N. - 117
Grinberg, S. M. - 852
Gritskova, I. A. - 341, 464
Grivtssov, A. G. - 284
Grossman, V. I. - 828
Gurevich, E. I. - 261
Guseva, V. I. - 173

I

Ignatov, Yu. I. - 658
Ishchuk, Yu. L. - 332
Ivanishvili, A. I. - 123
Ivanov, A. N. - 810
Ivanov, N. K. - 841
Ivanova, M. I. - 126
Ivanova, N. N. - 484, 488, 673
Ivanova, N. S. - 897
Izmaillova, V. N. - 844

K

Kalminskaya, I. A. - 701
Kamenetskii, A. N. - 488
Kaminskii, V. A. - 236, 608
Kanchenko, Yu. A. - 706
Kandyrin, L. B. - 852
Karabanov, N. T. - 653
Karasev, V. V. - 584
Karnakov, B. M. - 240
Kasaikin, V. A. - 765
Khachaturyan, M. A. - 850
Khadakhané, N. É. - 665
Khandanyan, A. Zh. - 543
Kharlamova, G. K. - 470
Khlebtsov, N. G. - 877
Khramova, T. S. - 148
Khromova, E. N. - 584
Khrustalev, Yu. A. - 1063
Khutoryanskaya, A. U. - 183
Khvorostyanov, A. G. - 176
Kirsh, A. A. - 27, 246
Kiselev, A. V. - 287, 303, 752
Kiselev, O. N. - 310

Kiseleva, M. A. - 310
Kiseleva, O. A. - 917, 921, 1021
Kiseleva, O. G. - 313, 846
Klad'ko, S. N. - 921
Klassen, V. I. - 903
Klenin, V. I. - 275
Klimenko, N. A. - 307
Klitenik, G. S. - 326
Klugman, F. I. - 33
Klykova, V. D. - 855
Klyuev, V. A. - 1063
Kobelev, A. V. - 252
Kobeleva, R. M. - 252, 677
Kochanova, L. A. - 1055
Kocherga, I. I. - 5
Kochurova, N. N. - 323
Kofanov, V. I. - 170
Koganovskii, A. M. - 307
Kolesov, I. K. - 850
Kolikov, V. M. - 492
Kononenko, V. G. - 129, 497, 500
Konstantinov, A. A. - 824
Kontorovich, S. I. - 129, 497, 500, 727, 881
Kopeikin, V. A. - 131
Koptelova, M. M. - 933
Koretskaya, T. A. - 501
Koretskii, A. F. - 52
Korol'kova, L. V. - 484, 673
Koromal'di, E. V. - 303
Korovskii, Sh. Ya. - 418
Korshuk, É. F. - 861
Korsunskaya, A. I. - 363
Koryavchikova, T. M. - 752
Kosareva, V. A. - 318
Kozlov, O. A. - 824
Kozlov, P. V. - 765
Kozlov, V. I. - 534
Kozyr', S. N. - 682
Krasheninnikov, S. K. - 824
Krasil'nikov, I. V. - 492
Kretschmar, G. - 802
Krivosheev, Yu. I. - 120
Krot, L. I. - 452
Krotov, V. V. - 37, 45
Krotova, N. A. - 1063
Kruglitskii, N. N. - 757
Kruglyakov, N. M. - 134
Kruglyakov, P. M. - 52
Krupskaya, A. P. - 866
Kuchumova, V. M. - 1055
Kudashova, R. V. - 685
Kudra, L. A. - 80
Kudryavtseva, N. M. - 941
Kuleznev, V. N. - 144, 358,

402, 852, 855
Kuni, F. M. - 980
Kurennyaya, L. I. - 140
Kurgaev, E. F. - 805
Kurilenko, O. D. - 329
Kurilenok, A. I. - 313
Kutukov, V. B. - 641
Kuz'min, V. L. - 338, 392
Kuz'mina, G. L. - 138
Kuz'mina, Z. F. - 869
Kuznetsov, V. L. - 464
Kuznetsova, A. M. - 690, 694
Kuznetsova, T. V. - 1005
Kvlividze, V. I. - 1025

L

Lamden, K. S. - 360
Lapshova, A. V. - 313, 846
Lashnev, V. I. - 1012
Lavrent'ev, V. V. - 828
Lavrov, I. S. - 701
Lebedev, A. V. - 318
Lebedev, V. S. - 112
Lebedev, Yu. Ya. - 492
Lednev, Yu. N. - 144
Leonov, L. F. - 397
Levi, S. M. - 170
Lipatov, Yu. S. - 148, 503
Lipatova, É. A. - 1034
Lishtvan, I. I. - 698
Lonskii, Yu. A. - 387
Lukashenko, G. M. - 986
Lunina, M. A. - 850
Lushnikov, A. A. - 760, 945
Lutskii, M. S. - 326
Lysenko, L. S. - 112
Lysykh, O. V. - 484, 673

M

Maevskaia, L. N. - 949
Maiorov, M. M. - 954
Makarov, A. S. - 757
Malikov, B. A. - 397
Malkin, É. S. - 553
Maloshuk, Yu. S. - 671
Malov, V. A. - 701
Malyarenko, V. V. - 58
Mank, V. V. - 23, 329, 1030
Markaryan, Sh. A. - 538
Markina, Z. N. - 441
Markov, A. V. - 402
Markov, N. G. - 402
Markov, V. V. - 671
Martynov, G. A. - 138, 406
Mazlovskii, A. A. - 152

Mchedlishvili, B. V. - 492
Medvedev, M. I. - 1030
Melkonyan, L. G. - 538
Mel'nikova, V. A. - 165
Mikhailov, N. V. - 1
Mikhailova, S. S. - 517
Mikhel'son, M. L. - 257, 508
Mirgorod, Yu. A. - 857
Mishchenko, V. N. - 155
Mitina, T. D. - 861
Moiseev, V. A. - 23
Moiseeva, N. M. - 484
Moroz, A. P. - 479
Morozov, V. I. - 903
Muller, V. M. - 11, 510, 933
Muminov, S. Z. - 864
Muttik, G. G. - 287
Mysak, A. E. - 706, 866

N

Nakhutin, I. E. - 240
Nalbandyan, Yu. E. - 538, 543, 709
Nazanskii, A. S. - 303
Nebera, V. P. - 965
Nechaev, E. A. - 160, 894
Nechiporenko, N. A. - 261
Neiman, R. É. - 313, 513, 846
Neimark, I. E. - 155, 180, 343
Nekrasova, L. A. - 109
Neverov, A. S. - 651
Nevskii, I. A. - 936
Nikitin, Yu. S. - 752
Nikitina, N. S. - 706
Nikonorova, N. I. - 765
Noskov, B. A. - 323
Novokreshchenova, L. N. - 112, 835

O

Ogarev, V. A. - 820
Ogloblina, I. P. - 752
Okopnaya, N. T. - 97
Osipov, Yu. A. - 207
Ososkov, V. K. - 522
Ostapenko, N. S. - 207
Ostrovskii, Yu. K. - 810
Ovasapyran, A. A. - 709
Ovcharenko, F. D. - 23, 58, 374, 578, 1030

P

Pakhovchishin, S. V. - 706
Panaeva, S. A. - 105

Panich, R. M. - 484, 673
Panov, E. N. - 1034
Parkhomenko, V. V. - 80
Pasechnik, V. I. - 1037
Pashkovskii, V. G. - 713
Pavlov, N. V. - 748
Pernikova, V. N. - 310
Pestrikov, S. V. - 869
Petryanov, I. V. - 534, 936
Pilyankevich, A. N. - 165
Pinchuk, L. S. - 651
Pisaruk, V. I. - 682
Piskunov, V. N. - 760, 945
Pis'mennaya, G. M. - 844
Plavnik, G. M. - 713
Pleshakova, L. I. - 105
Podlinnykh, L. V. - 332
Polozova, L. K. - 531
Poltoratskaya, T. V. - 757
Polukhin, A. T. - 167
Potapov, É. É. - 671
Prokhorov, P. S. - 397
Prokof'eva, M. V. - 80
Prosvirin, V. I. - 418
Prusakov, M. A. - 614
Puchkov, N. I. - 517
Pugachevich, P. P. - 441
P'yankova, N. V. - 869
Pylova, M. B. - 1025

R

Rabinovich, I. I. - 441
Rabinovich, Ya. I. - 614, 959
Rak, V. S. - 1047
Rakhlin, P. I. - 318
Razin, G. P. - 300
Razinskaya, I. N. - 813
Rodchenko, D. A. - 335, 464
Rodionova, N. V. - 869
Rogovina, L. Z. - 824
Roldugin, V. I. - 907
Rovin, Yu. G. - 1042
Rozental', O. M. - 252, 677
Rozinoer, Ya. M. - 765
Rubezhnyi, Yu. G. - 240
Rudenko, S. V. - 170
Rudnev, V. S. - 1042
Rulev, N. N. - 64, 231, 267, 522, 598, 926
Rusanov, A. I. - 33, 37, 45, 192, 194, 338, 392, 546, 561, 569, 618, 624
Ryabinina, T. I. - 479
Ryzhov, V. A. - 872

S

Sadovskii, B. F. - 936

Sagalaev, G. V. - 402
Samygin, V. D. - 965
Sanzaasurén, R. - 197, 425, 647, 715
Savitskii, A. I. - 418
Savkin, A. G. - 578
Shchukin, E. D. - 1055
Sedakova, L. I. - 341, 464
Sedletskii, R. V. - 721
Sedykh, N. V. - 719
Seleznev, A. P. - 69
Seliverstova, N. A. - 694
Semenikhin, N. M. - 769
Semenov, V. A. - 733
Sergeeva, L. M. - 148
Shaginyan, A. A. - 538, 543, 709
Shalopalkina, T. G. - 347
Shapiro, M. S. - 805
Shapiro, Yu. E. - 730
Shatalov, V. P. - 765
Shchegolev, S. Yu. - 275
Shcherbakov, L. M. - 194
Shchukin, E. D. - 281, 284, 497, 500, 727, 881
Shchukin, E. R. - 641, 810
Sheinfain, R. Yu. - 180, 343
Shelakova, T. S. - 103
Shershnev, V. A. - 671, 730
Shifrin, K. S. - 360
Shilov, V. N. - 17, 58, 775, 781, 786
Shirokova, L. G. - 470
Shishin, V. A. - 351, 447
Shlyakhter, R. A. - 883
Shtarkman, B. P. - 813
Shteinberg, S. A. - 464
Shul'ga, E. A. - 103
Shvartsburd, B. I. - 275
Sibirkova, V. T. - 721
Sidorova, M. P. - 971, 1012
Silina, T. V. - 817
Silina, V. D. - 736
Simonov, I. N. - 775, 781, 786
Sirota, A. I. - 877
Sivakova, S. I. - 857
Skrylev, L. D. - 522
Slinyakova, I. B. - 140, 155
Slonimskii, G. L. - 824
Smirnova, L. M. - 160
Smirnova, N. A. - 73
Sobolev, V. D. - 665, 917, 921, 1012
Sobolevskaya, T. T. - 1005
Sokol'nikova, I. N. - 517
Solomchenko, N. Ya. - 173
Solomentseva, I. M. - 5,

202, 1005
Solov'eva, T. S. - 341
Soltis, M. N. - 503
Spasskii, M. R. - 429
Stadnichuk, T. V. - 883
Starov, V. M. - 176, 383,
 406, 584, 975, 1021
Stas', O. P. - 180
Stechkina, I. B. - 27
Storonkin, B. A. - 980
Strel'tsova, O. A. - 894
Strizhak, N. P. - 17
Stukalova, N. P. - 437, 630
Stupin, D. Yu. - 69
Sudzilovskaya, T. N. - 730
Suleimanov, F. G. - 1
Sunchaleeva, S. S. - 216
Suzdal'tseva, S. F. - 727,
 881
Svistunova, E. M. - 658

T

Tadzhieva, D. A. - 864
Taevere, E. D. - 1002
Tager, A. A. - 813
Talmud, S. L. - 111, 300
Tanchuk, Yu. V. - 635, 790,
 794
Tarakanov, O. G. - 112, 835
Tarasevich, B. N. - 844
Tarasevich, Yu. I. - 1047
Tarasova, D. V. - 183
Telichkun, V. P. - 1047
Terent'ev, A. A. - 698
Terent'eva, É. A. - 986
Tikhomolova, K. P. - 798,
 933
Tikhonov, V. P. - 526
Timashev, S. F. - 608
Todosllichuk, T. T. - 148
Toporov, Yu. P. - 11
Tovbin, M. V. - 189
Trapeznikov, A. A. - 347,
 869

Tretinnik, V. Yu. - 80
Troitskii, B. B. - 653
Trusov, A. A. - 221
Tsebers, A. O. - 954
Tselen'skii, Yu. K. - 123
Tsikurina, N. N. - 441
Tsubina, Kh. V. - 470
Tsvetkovskii, I. B. - 883
Tsyganok, V. N. - 838
Tsygel'nyi, I. M. - 886
Tynnyi, A. N. - 886

U

Uklonskii, D. A. - 112
Ul'berg, Z. R. - 1051
Umnyagin, A. M. - 733
Ur'ev, N. B. - 733, 1066
Usachev, S. V. - 144
Usatenko, S. T. - 903
Ustinov, I. D. - 291
Ustinova, Z. M. - 341
Us'yarov, O. G. - 1002
Uvarova, L. A. - 641

V

Vaisman, M. N. - 733
Valuev, V. I. - 883
Varfolomeeva, E. K. - 216
Vasil'ev, N. G. - 578
Vasil'ev, V. G. - 824
Vasina, A. F. - 817
Vdovenko, L. L. - 363
Verezhnikov, V. N. - 105
Vetrova, Z. P. - 653
Vins, V. G. - 105
Vlasov, S. V. - 402
Vlasov, V. V. - 216
Vogman, L. P. - 733
Voitova, R. A. - 866
Voitylov, V. V. - 221
Vol'khin, V. V. - 103
Volkov, V. A. - 690, 694
Vollhardt, D. - 802

Vol'ska, É. - 467
Vorob'eva, L. D. - 287
Voronin, I. V. - 828
Vorontsova, N. V. - 841
Voyutskii, S. S. - 740
Voznaya, É. E. - 1002
Voznyi, P. A. - 226, 378

W

Wüstneck, R. - 802

Y

Yakerson, V. I. - 117
Yakovleva, V. F. - 152
Yalamov, Yu. I. - 641, 810,
 991
Yanovskaya, A. P. - 897
Yaremko, Z. M. - 503
Yashakova, E. N. - 534
Yashin, Ya. I. - 653
Yurkevich, O. R. - 464
Yushchenko, V. S. - 281, 284
Yusufov, I. M. - 1

Z

Zadymova, N. M. - 441
Zagoruiko, V. A. - 120
Zakharkin, O. A. - 144
Zakharov, N. D. - 144
Zakharov, V. P. - 671
Zgadzai, L. K. - 216
Zhdanov, S. P. - 303
Zheleznyi, B. V. - 207
Zholkovskii, É. K. - 769
Zhukov, N. P. - 748
Zhukova, V. Ya. - 112, 835
Zhulanov, Yu. V. - 246, 936
Zinchenko, V. D. - 23
Zlochevskii, E. M. - 387
Zorin, Z. M. - 351, 447,
 949, 1012, 1016
Zukov, A. V. - 479
Zyryanova, L. V. - 841

TABLES OF CONTENTS

COLLOID JOURNAL

Volume 39, Numbers 1-6, 1977

(A translation of *Kolloidnyi Zhurnal*)

Volume 39, Number 1 January-February, 1977

Engl./Russ.

Effect of Surfactants (petroleum polymeric resins) on the Structure-Forming Role of the Filler in Activated Cement Systems - Sh. T. Babaev, F. G. Suleimanov, I. M. Yusufov, and N. V. Mikhailov	1	3
Stabilization of Hydrophobic Sol's by Water-Soluble Polymers. 4. Adsorption of Polyethylene Oxides by Colloidal Silver Iodide Particles - A. A. Baran, I. I. Kocherga, and I. M. Solomentseva	5	9
The Ratio between Electrostatic and Molecular Component in the Adhesion of Elastic Particles to a Solid Surface - B. V. Deryagin, Yu. P. Toporov, V. M. Muller, and L. N. Aleinikova	11	16
Electrofiltration of Suspensions by Using Nonconducting Collectors - S. S. Dukhin, V. D. Grebenyuk, N. P. Strizhak, and V. N. Shilov	17	23
NMR Investigation of Aqueous Mixtures of Polyethylene Glycols - V. D. Zinchenko, V. V. Mank, V. A. Molseev, and F. D. Ovcharenko	23	30
Inertial Precipitation of Aerosols in Model Filters at Low Reynolds Numbers - A. A. Kirsh and I. B. Stechkina	27	36
Thermodynamically Equilibrium States of Disperse Systems with Disperse Particles - F. I. Klugman and A. I. Rusanov	33	44
Adsorption Kinetics of Surfactants in Liquid Solutions. 1. The Case of One Surfactant - V. V. Krotov and A. I. Rusanov	37	48
Adsorption Kinetics of Surfactants in Liquid Solutions. 2. Surfactant Mixtures - V. V. Krotov and A. I. Rusanov	45	58
Differences in the Adsorption of Surfactants in a Black Hydrocarbon Film and on the Interface between Bulk Phases - P. M. Kruglyakov, A. I. Bulavchenko, and A. F. Koretskii	52	66
Electrical Conductivity of Suspensions and Electrical Orientation of Colloidal Particles - F. D. Ovcharenko, V. V. Malyarenko, and V. N. Shilov	58	73
Collective Velocity of Rising Bubbles - N. N. Rulev	64	80
Crystallization Rate of an Aqueous Aerosol in a Gaseous Medium under Conditions which Promote the Formation of Gaseous Hydrates - A. P. Seleznev and D. Yu. Stupin	69	86
Multilayer Lattice Model for Investigating the Surface Properties of a Monomer-Dimer Solution Having Directed Intermolecular Interactions. 1. General Equations for the Case of a Symmetrical Dimer - N. A. Smirnova	73	92
Stabilizing Action of Water-Soluble Cellulose Ethers on Suspensions of Na and Ca Montmorillonite - V. Yu. Tretinnik, V. V. Parkhomenko, L. A. Kudra, and M. V. Prokof'eva	80	100
Kinetics of Surfactant Adsorption from Solution - V. B. Fainerman	85	106
Role of Diffusion and of the Energy Barrier in Adsorption of Surfactants from Solution - V. B. Fainerman	91	113
Hydrothermal Modification of Germanium, Tin, and Lead Dioxides - V. M. Chertov and N. T. Okopnaya	97	121

BRIEF COMMUNICATIONS

Stationary Movement of a Liquid Dielectric in an Electric Field — E. E. Bibik and N. S. Chalenko	102	127
Certain Features in the Sorption Kinetics of Cesium Ions by Ammonium Nickel Phosphate — V. V. Vol'khin, T. S. Shelakova, and E. A. Shul'ga	103	128
Colloidal-Chemical Properties of Surfactants of the Type of Alkyl Sulfosuccinates in Acid Media — L. I. Germasheva, V. N. Verezhnikov, G. M. Gaevoi, S. A. Panaeva, V. G. Vins, L. I. Pleshakova	105	130
Surface Activity of Organofluorine Esters of Sulfosuccinic Acid — G. S. Gol'din, K. O. Averbakh, and L. A. Nekrasova	109	134
Evaluation of the Surface Potential of Cellulose Fibers — V. M. Drobosyuk and S. G. Talmud	111	136
Foaming Capacity of Polydimethylsiloxane — Polyoxyethylene Block Copolymers in Polyesters — E. G. Dubyaga, V. Ya. Zhukova, O. G. Tarakanov, L. N. Novokreshchenova, M. V. Bulgakova, V. S. Lebedev, L. S. Lysenko, and D. A. Uklonskii	112	138
Effect of the Pressing Force on the Textural and Mechanical Characteristics of the Nickel-Aluminum-Calcium Catalytic System — V. N. Efremov, V. I. Artamonov, A. N. Grechenko, M. I. Dashevskii, E. Z. Golosman, and V. L. Yakerson	117	143
Investigation of the Adsorption-Active Surface of Capillary-Porous Colloidal Materials — V. A. Zagorulko and Yu. I. Krivosheev	120	146
Stabilization of Clay Solutions — A. I. Ivanishvili, A. M. Gamol'skii, and Yu. K. Tselinskii .	123	149
Effect of Composition of Water-Soluble Acrylic Copolymers on Properties of Aqueous Alcoholic Solutions of a Copolymer and Adsorption of Titanium Oxide Pigment — M. I. Ivanova, P. I. Ermilov, and A. S. Alekseev	126	152
Measurement of the Contribution of Multiple Scattering to the Intensity of Light Scattering by Colloidal Systems — V. G. Kononenko and S. I. Kontorovich	129	155
Mechanism of Formation of Aluminum Hydroxides — V. A. Kopeikin	131	158
Types of Stabilization of Emulsions and Special Characteristics of Phase Inversion — N. M. Kruglyakov	134	161
Determination of the Specific Adsorption Energy of Li^+ , K^+ , Cs^+ , and Cu^{2+} Ions on Gold Surface from Electrokinetic Data — G. L. Kuz'mina and G. A. Marrtynov	138	164
Coprecipitated Adsorbents Containing Methyl, Phenyl, and Hydroxyl Groups — L. I. Kurennaya and I. B. Slinyakova	140	166
Covulcanization in SKD and SKN-40 Rubber Mixtures — Yu. N. Lednev, N. D. Zakharov, O. A. Zakharkin, V. N. Kuleznev, and S. V. Usachev	144	170
NMR Investigation of Polycarbonate and Polystyrene Adsorption — Yu. S. Lipatov, T. S. Khramova, T. T. Todositchuk, and L. M. Sergeeva	148	174
Evaporation of Drops of Highly Volatile Liquids and Compressed Gases — A. A. Mazlovskii and V. F. Yakovleva	152	178
Adsorption of Polar and Nonpolar Substances on Xerogels of Silico-Polyvinylsiloxane — V. N. Mishchenko, I. B. Slinyakova, and L. E. Neimark	155	181
Adsorption of Methylene Blue on Oxides from Aqueous Solutions — E. A. Nechaev and L. M. Smirnova	160	186
Coalescence in Disperse Films of Gold under the Action of Electrolytes — A. N. Piliankevich and V. A. Mel'nikova	165	190
Motion of a Water-Suspended Particle Surrounded by a Hydration Shell — A. T. Polukhin	167	192
Some Specific Characteristics of the Surface Tension of Aqueous Solutions of Alkyl- and Alkylphenylpolyethylene Glycol Derivatives — S. V. Rudenko, V. I. Kofanov, and S. M. Levi	170	195
Investigation of Adsorption Modification of Crystalline Potassium Chloride In Saturated Aqueous Solutions — N. Ya. Solomchenko, and V. I. Guseva	173	198

The Form of the Moving Meniscus in Flat Capillaries — V. M. Starov, N. V. Churaev and A. G. Khvorostyanov	176	201
Effect of Various Factors on the Porous Structure of Ferrisilica Gel — O. P. Stas', R. Yu. Sheinfain, and L. E. Neimark	180	205
Formation of the Surface of Silica Gels Obtained from Silica Sols — D. V. Tarasova, V. B. Fenelonov, V. A. Dzis'ko, V. Yu. Gavrilov, and A. U. Khutoryanskaya	183	207
Effect of Adsorption Modification of the Surface of Crystalline Substances on Their Ice-Forming Activity — M. V. Tovbin, I. I. Chesha, and L. A. Gel'man	189	213
BOOK REVIEWS		
E. Matijevic (editor). Surface and Colloid Science — Reviewed by A. I. Rusanov	192	216
A. D. Zimon. Adhesion of Liquids and Wettability — Reviewed by L. M. Shcherbakov and A. I. Rusanov	194	217

Volume 39, Number 2 March-April, 1977

Investigation of the Processes of Chemical Interaction in Aqueous Suspensions of Tetracalcium Aluminoferrite in the Presence of Gypsum Dihydrate — E. P. Andreeva and R. Sanzhaasurén	197	227
Stabilization of Hydrophobic Sols by Water-Soluble Polymers. 5. Stabilization Mechanism of Silver Iodide Hydrosol by Adsorbed Layers of Poly(ethylene oxides) — A. A. Baran and I. M. Solomentseva	202	234
Rheological Characteristics of Thin Wetting Films of Single-Component Liquids, as Determined by a Capillary Method — N. F. Bondarenko, B. V. Zheleznyi, Yu. A. Osipov, and N. S. Ostapenko	207	241
Complexes of Activated Montmorillonites with Polyvinyl Alcohol — E. K. Varfolomeeva, L. K. Zgadzai, V. V. Vlasov, and S. S. Sunchaleeva	216	252
Theory of a Method for Studying Steady-State Electrooptical Phenomena in Disperse Systems in Uniform Electrical Fields — V. V. Voitylov and A. A. Trusov	221	258
Thermoosmotic Flow of Water in Porous Glasses. 1. Investigation Techniques P. A. Voznyi and N. V. Churaev	226	264
Hydrodynamic Interaction between a Solid Spherical Particle and a Bubble in the Elementary Act of Flotation — S. S. Dukhin and N. N. Rulev	231	270
Slow Turbulent Coagulation — V. A. Kaminskii	236	276
Electronic Levels of a Model of a Small Particle — B. M. Karnakov, I. E. Nakhutin, and Yu. G. Rubezhnyi	240	281
Measurement of the Penetration of Aerosols through High-Efficiency Filters — A. A. Kirsh and Yu. V. Zhulanov	246	288
Theory of the Electronic Component of the Force of Interaction between Metals — R. M. Kobeleva, O. M. Rozental', and A. V. Kobelev	252	295
Rates of Growth and Solution of Ultramicroscopic Calcite Particles in Aqueous Calcium Bicarbonate Solution in a Magnetic Field — M. L. Mikhel'son	257	302
Effect of the Conditions of Film Formation and Subsequent Hydrothermal Treatment on the Adhesion of a Modified Copolymer of Butyl Methacrylate and Methacrylic Acid — N. A. Nechiporenko, E. I. Gurevich, and Yu. V. Dembovskaya	261	307
Kinetics of the Flotation of Fine Particles by a Group of Bubbles — N. N. Rulev, B. V. Deryagin, and S. S. Dukhin	267	314
Morphology of New-Phase Particles during Turbidimetric Titration of Polymer Solutions — S. Yu. Shchegolev, V. I. Klenin, and B. I. Shvartsburd	275	324
Molecular Dynamics of Wetting — E. D. Shchukin and V. S. Yushchenko	281	331
Stability and Dynamics of a Drop on the Surface of a Solid Body — V. S. Yushchenko, A. G. Grivtsov, and E. D. Shchukin	284	335

BRIEF COMMUNICATIONS

Heats of Adsorption of Sulfur Dioxide by Macroporous Weakly Basic Anion Exchangers and Determination of Their Pore Structure — N. N. Avgul', T. V. Barmakova, L. D. Belyakova, L. D. Vorob'eva, N. G. Dadugina, A. V. Kiselev, and G. G. Muttik.	287	339
Stability of Foams Stabilized by Soaps of Unsaturated Fatty Acids — Yu. V. Gerasimov and I. D. Ustinov	291	343
Effect of Heat Treatment on the Surface Properties of Titanium Dioxide Produced by Chloridation Treatment — L. V. Denisova.	293	345
Investigation of the Shear Strength of Water in Pores of Cement Stone — K. A. Dzhabarov	297	348
Precipitation of Dispersed Particles on a Fiber in a Steady Electric Field — V. M. Drobosyuk, G. P. Razin, and S. L. Talmud.	300	351
Determination of the Molecular Mass Distribution (MMD) of Polystyrene by Means of Adsorption of Macroporous Glasses, Silica Gels, and Silochromes — S. P. Zhdanov, A. V. Kiselev, E. V. Koromal'di, A. S. Nazanskii, and Yu. A. Él'tekov.	303	354
Adsorption of Alkylsulfates and Alkylsulfonates on Acetylene Black from Aqueous Solutions up to Critical Micelle Concentration — A. M. Koganovskii, N. A. Klimenko and M. M. Chobanu.	307	358
Study of the Thermal Effects in the Exchange Reactions of Alkali-Metal Ions on Gel and Macroporous Sulfonated Styrene Cation Exchangers — M. A. Kiseleva, O. V. Chashchina, O. N. Kiselev, and V. N. Pernikova	310	361
Characteristics of the Aggregation of Synthetic Latexes upon Freezing — O. G. Kiseleva, A. I. Kurilenok, A. V. Lapshova, and R. É. Neiman	313	364
Specific Special Characteristics of Latex Adhesives — V. A. Kosareva, P. I. Raklin, and A. V. Lebedev	318	369
Kinetics of the Adsorption of Surfactants in a Jet of Liquid — N. N. Kochurova and B. A. Noskov.	323	373
Reduction of the Viscosity of Polymer Systems by the Introduction of Certain Fillers — M. S. Lutskii, G. S. Klitenik, and I. D. Fridman	326	376
NMR Study of the Interaction of Alcohols with Cation Exchangers in the H Form — V. V. Mank, N. V. Gorokhovat-skaya, I. D. Atamanenko, and O. D. Kurilenko.	329	379
Effect of a Constant Electric Field on Structure Formation of Lithium 12-Hydroxystearate in Vaseline Oil — L. V. Podlinnykh, V. A. Dagaev, and Yu. L. Ishchuk	332	382
Effect of Dispersed Copper and Copper Oxide on the Mechanical and Adhesion Properties of Polytrifluorochloroethylene — D. A. Rodchenko and A. I. Barkan.	335	385
Effect of an Electric Field on the Surface Tension of a Polar Liquid — A. I. Rusanov and V. L. Kuz'min	338	388
Change in Latex Particle Size with the Degree of Conversion — L. I. Sedakova, I. A. Gritskova, Z. M. Ustinova, T. S. Solov'eva	341	391
Factors Affecting the Porous Structure of Silico-Zirconium Adsorbents — O. P. Stas', R. Yu. Sheinfain, and I. E. Neimark.	343	393
Effect of Epoxide and Pentaphthalic Resins on the Rheological Properties of Suspensions in Plasticized Butyl Rubber and Transformer Oil — T. G. Shalopalkina, E. P. Bogomolova, and A. A. Trapeznikov	347	397
Isotherms of the Disjoining Pressure of Wetting Films of Liquids on Solid Substrates. 1. Method of Measurements — V. A. Shishin, Z. M. Zorin, and N. V. Churaev.	351	400
LETTERS TO THE EDITOR		
Determination of the Excess Energy in Heterophase Mixtures of Polymers — V. N. Kuleznev	358	407
BOOK REVIEWS		
Wilfred Heller, Masayuki Nakagaki, and Gary D. Landolf. Review of Tables on Light Scattering — Reviewed by K. S. Lamden and K. S. Shifrin	360	409

Stability of Colloidal Solutions in Aqueous Organic Dispersion Media.

1. Effect of Organic Solvents on the Electrokinetic Potential and Surface Charge of Arsenic and Antimony Sulfide Particles - A. A. Baran, I. N. Chekhovaya, L. I. Vdovenko, and A. I. Korsunskaya	363	419
Stability of Colloidal Solutions in Aqueous Organic Dispersion Media.		
2. The Effect of Organic Solvents on the Stability of Arsenic and Antimony Sulfide Hydrosols - A. A. Baran and I. N. Chekhovkaya	369	427
Method of Investigating the Electrosurface Properties of Highly Dispersed Substances		
- Yu. P. Boiko, O. L. Alekseev, and F. D. Ovcharenko	374	433
Thermoosmotic Flow of Water in Porous Glasses. 2. Experimental Results		
- P. A. Voznyi and N. V. Churaev	378	438
Capillary Interaction between Solid Bodies - B. V. Deryagin and V. M. Starov		
Selection of Electrical Conditions for Electrophoresis in Polyacrylamide Gel - E. M. Zlochevskii and Yu. A. Lonskii	383	444
The Electric Double Layer at the Surface of Polar Liquids - V. L. Kuz'min and A. I. Rusanov	387	449
Conditions for Maintaining the Screening Effect of Surfactant Monolayers on Water Drops Growing in a Supersaturated Medium - L. F. Leonov, P. S. Prokhorov, and B. A. Malikov	392	455
Investigation of the Deformation of Films of Two-Phase Polymer Alloys		
- N. G. Markov, S. V. Vlasov, G. V. Sagalaev, V. N. Kuleznev, and A. V. Markov Hysteresis of the Contact Angle at Homogeneous Surfaces - G. A. Martynov, V. M. Starov, and N. V. Churaev	397	460
Investigation of Oxalate Decomposition Processes in a Polymeric Medium in Connection with the Preparation of Metal-Containing Polymers with Highly Disperse Fillers. 1. Study of Oxalate Decomposition Kinetics in a Polymeric Medium by Thermogravimetry and Differential Thermal Analysis		
- A. I. Savitskii, Sh. Ya. Korovskii, and V. I. Prosvirin	402	467
Structure-Formation Processes in Aqueous Tetracalcium Alumoferrite Suspensions in the Presence of Gypsum - R. Sanzaasuren, E. P. Andreeva, and D. K. Burova .	406	472
Mechanism of the Vibrational Compaction of Bulk Materials - M. R. Spasskii	418	485
Structure Formation and Chemical Reaction in Aqueous Suspensions of Tetracalcium Alumoferrite in the Presence of Calcium Chloride - N. P. Stukalova and E. P. Andreeva	425	494
Investigation of the Surface Tension of Aqueous Solutions of Cetyltrimethylammonium Bromide with Respect to the Time of Existence of the Phase Separation Boundary - N. N. Tsikurina, N. M. Zadymova, P. P. Pugachevich, I. I. Rabinovich, and Z. N. Markina	429	500
Disjoining Pressure Isotherms of Wetting Fields of Liquids on Solid Substrates.		
2. Results of Experiments - V. A. Shishin, Z. M. Zorin, and N. V. Churaev . . .	437	508
2. Results of Experiments - V. A. Shishin, Z. M. Zorin, and N. V. Churaev . . .		
BRIEF COMMUNICATIONS		
Influence of Magnetization of OP-10 Solution on Emulsion Stability - T. Kh. Aglemer'yan, L. N. Efanova, and L. I. Krot	441	513
Criterion of Coalescence of Drops of Inverse-Type Emulsion in a Uniform Electric Field - B. F. Anisimov and V. G. Emel'yanchenko	447	520
Some Properties of Isoprene-Styrene Latexes - S. A. Baikova, L. I. Sedakova, I. A. Gritskova, V. L. Kuznetsov, S. A. Shtenberg, and V. V. Chernaya	452	526
Adhesion of Filled Polytetrafluoroethylene - V. A. Belyi, A. I. Barkan, D. A. Rodchenko, and O. R. Yurkevich	454	528
Conversion of an Amorphous Gel of Aluminum Hydroxide into Nordstrandite in the Presence of Aurintricarboxylic Acid Ammonium Salt - È. Vol'ska	464	534
	464	536
	467	539

Rheological Behavior of Polyester Compositions with Phenol and Glass Microspheres — A. G. Golubkov, L. G. Shirokova, I. M. Al'shits, Kh. V. Tsubina, and G. K. Kharlamova	470	542
Surface Properties of Chloride Titanium Dioxide — L. V. Denisova	476	547
Electrodeposition of Latex Polymers on Metal — V. I. Eliseeva, A. P. Moroz, T. I. Ryabinina, and A. V. Zulkov	479	550
Effect of Dialysis on the Colloid-Chemical Properties of Butyl Rubber Dispersions and the Properties of Films Made from Them — N. N. Ivanova, R. M. Panich, N. M. Moiseeva, O. V. Lysykh, and L. V. Korol'kova	484	555
Electron-Microscopic Investigation of Butyl Rubber Dispersions — A. N. Kamenetskii and N. N. Ivanova	488	559
Separation of Biopolymers by Liquid Sieve Chromatography under Nonequilibrium Conditions — V. M. Kolikov, B. V. Mchedlishvili, Yu. Ya. Lebedev, and I. V. Krasil'nikov	492	562
Characteristics of Light Scattering in the Initial Stage of Gel Formation in Silicic Acid Sols — V. G. Kononenko, S. I. Kontorovich, and E. D. Shchukin	497	567
Effect of the Increased Size of the Scattering Centers in Sols of Silicic and Aluminosilicic Acids When They Are Diluted — S. I. Kontorovich, V. G. Kononenko, and E. D. Shchukin .	500	569
Mechanism of the Prevention of Foam Formation in Solutions of Nonionogenic Surfactants — T. A. Koretskaya	501	571
Energy of the Interaction between Two Spherical Particles Coated with an Adsorption Layer of Macromolecules — Yu. S. Lipatov, M. N. Soltis, and Z. M. Yaremko	503	573
Lorentz Forces with Combined and Separate Action of Electric and Magnetic Fields on Solutions — M. L. Mikhel'son	508	577
Exact Solution of the Equation of Coagulation with Breakdowns — V. M. Muller	510	579
Effect of Electrolytes on the Mechanical Coagulation of Synthetic Latexes — R. É. Neiman and A. K. Egorov	513	582
Effect of Adsorptive Modification of the Solid Phase on Polymer Structure and Strength Characteristics in Polyepoxide-Oxidized Aluminum Systems — I. N. Sokol'nikova, S. S. Mikhailova, N. I. Puchkov, A. E. Chalykh, and A. S. Freidin	517	585
Capture Efficiency of Small Petroleum Emulsion Droplets by Air Bubbles during Flotation — N. N. Rulev, V. K. Ososkov, and L. D. Skrylev	522	590
IR Investigation of the Association of Fatty Amine Molecules in Carbon Tetrachloride — V. P. Tikhonov	526	594
Interconnection between the Kinetics of Structure Formation and the Kinetics of Chemical Reactions in the System CdO-WO ₃ -H ₂ O - D. I. Chemodanov and L. K. Polozova	531	599
Investigation of the Laws Governing the Deposition of Aerosols in FP Materials with Charged Fibers — E. N. Yashakova, E. V. Abramina, V. I. Kozlov, and I. V. Petryanov	534	602
Effect of Neutral Electrolytes on the Compactness and Form of Micelles of Anionic Surfactants — A. A. Shaginyan, O. M. Aivazyan, Yu. E. Nalbandyan, L. G. Melkonyan, and Sh. A. Markaryan	538	605
Effect of NaCl and n-Dodecylmercaptan Concentration on the Distribution of Naphthalene in the Hydrophilic and Hydrophobic Regions of Sodium Pentadecyl Sulfonate Micelles in Water — A. A. Shaginyan, B. M. Aivazyan, Yu. E. Nalbandyan, and A. Zh. Khandanyan	543	610
BOOK REVIEWS		
S. S. Dukhin and B. V. Deryagin. Electrophoresis — Reviewed by D. A. Fridrikhsberg . . . and A. I. Rusanov	546	614
CHRONICLES		
VI Conference on Surface Forces — N. V. Churaev	548	616

Volume 39, Number 4 July-August, 1977

Influence of Double Layer on Dynamics of Ion Adsorption in Biporous Media — I. I. Abarzhi, É. S. Malkin, and S. S. Dukhin	553	627
Investigation of Small Systems by Molecular Dynamics Method. 1. Energy and Molecular Structure of Small Drops — E. N. Brodskaya and A. I. Rusanov	561	636
Investigation of Small Systems by Molecular Dynamics Method. 2. Pressure Tensor and Surface Tension of Small Drops — E. N. Brodskaya and A. I. Rusanov	569	646
Investigation of the Surface Chemistry of Montmorillonite and Nontronite — N. G. Vasil'ev, L. V. Golovko, A. G. Savkin, and F. D. Ovcharenko	578	657
Study of the Boundary Viscosity of Volatile Liquids by the Blowoff Method — B. V. Deryagin, V. V. Karasev, V. M. Starov, and E. N. Khromova	584	664
Effect of the Particle Size on Heterocoagulation in an Elementary Flotation Act — B. V. Deryagin, N. N. Rulev, and S. S. Dukhin	598	680
Kinetics of Processes Controlled by Diffusion — V. A. Kaminskii, P. A. Brunov, and S. F. Timashev	608	692
Influence of Electric Charge on the Pull-Off Force of Metal Threads in Air — Ya. I. Rabinovich, B. V. Deryagin, M. A. Prusakov, and N. V. Churaev	614	698
Theory of the Wetting of Elastically Deformable Bodies. 5. Reduction of the Effects of Deformation to Line Tension — A. I. Rusanov	618	704
Theory of the Wetting of Elastically Deformable Bodies. 6. Influence of the Volume Deformation of a Solid — A. I. Rusanov	624	711
Investigation of Processes of Structure Formation and Chemical Interaction in Aqueous Suspensions of Tetracalcium Aluminoferrite in Presence of Calcium Chloride and Sulfate — N. P. Stukalova and E. P. Andreeva	630	718
Critical Micelle Concentration and the Structure of Ionic Surfactants — Yu. V. Tanchuk	635	725
Theory of the Evaporation of Large Drops of Volatile Binary Solutions — Yu. I. Yalamov, E. R. Shchukin, L. A. Uvarova, and V. B. Kutukov	641	732
BRIEF COMMUNICATIONS		
Structurization Processes in Aqueous Pastes of Tetracalcium Aluminoferrite in the Presence of Calcium Hydroxide — E. P. Andreeva and R. Sanzhaasuren	647	738
Influence of Polymeric Powders on Polarization Kinetics in Freezing of Liquids — V. A. Belyi, V. A. Gol'dade, A. S. Neverov, and L. S. Pinchuk	651	742
Adsorption-Absorption Chromatography of Group IV-B Organometallic Compounds — Z. P. Petrova, N. T. Karabanov, B. B. Troitskii, and Ya. I. Yashin	653	744
Influence of Low Temperatures on Physicochemical Properties of Ion Exchange Materials — A. T. Davydov, Yu. I. Ignatov, and E. M. Svistunova	658	748
Influence of Degree of Adsorptive Saturation on Film Formation by Latex Particles of Rigid-Chain Polymers — É. P. Dontsova, T. A. Belyaeva, N. S. Belavkina, and S. B. Erokhov	660	751
Study of Pore Structure of Glass Separating Membranes by an Adsorption/Filtration Method — T. P. Ermakova, V. D. Sobolev, N. É. Khadakhané, N. V. Churaev, and N. I. Ananich	665	755
State of the Boundary Layer Formed in Covulcanization of a Rubber Mix with a Vulcanizate — V. P. Zakharov, V. V. Markov, E. É. Potapov, Yu. S. Maloshuk, and V. A. Shershnev	671	760
Colloid-Chemical Properties of Butyl Rubber Dispersions — N. N. Ivanova, R. M. Panich, O. V. Lysykh, and L. V. Korol'kova	673	762

Calculation of Electronic Component of Interaction Force between Colloidal Particles — R. M. Kobreleva and O. M. Rozental'	677	766
Electrochemical Regeneration of a Mixed Bed of Ionites [Ion Exchange Resins] Treated with a Montmorillonite Suspension — S. N. Kozyr', V. I. Pisaruk, and V. D. Grebenyuk	682	771
Structure Formation in Agaroid Solutions during Gelling — R. V. Kudashova	685	774
Relationship between Hydration of Nonionic Surfactants in Solutions and in Adsorbed Layers on the Surface of Latex Particles — A. M. Kuznetsova, V. A. Volkov, and E. M. Aleksandrova	690	779
Interrelation between Stability of Latices Stabilized by Nonionic Surfactants and the Degree of Hydration of the Adsorbed Layer — A. M. Kuznetsova, V. A. Volkov, N. A. Seliverstova, and E. M. Aleksandrova	694	783
Vibrorheological Properties of Peat Systems in Fluid Consistency — I. I. Lishtvan, N. N. Bityukov, and A. A. Terent'ev	698	786
Influence of Field Frequency and Particle Size on Force Moving the Particle in an Inhomogeneous Electric Field — V. A. Malov, I. A. Kalminskaya, and I. S. Lavrov	701	789
Adsorption of n-Alkanes on Lithium Stearate and 12-Hydroxystearate — A. E. Mysak, N. S. Nikitina, Yu. A. Kanchenko, R. G. Davidan, and S. V. Pakhovchishin	706	794
Control of Content of n-Dodecyl Mercaptan in Micelles by Introducing the Mercaptan into Different Mesophases of the Sodium Pentadecylsulfonate/Water System — Yu. E. Nalbandyan, A. A. Shaginyan, and A. A. Ovasapyan	709	796
Influence of Prolonged Moisture Saturation on the Strength of Concrete — V. G. Pashkovskii, G. M. Plavnik, and G. M. Fedorova	713	800
Chemical Interaction Processes in Tetra calcium Aluminoferrite Pastes during Hydration in the Presence of Calcium Hydroxide — R. Sanzhaasuren and E. P. Andreeva	715	802
The Correct Use of the Dielectric Relaxation Method in Studying Dimensions, Shape, and Conformational Transitions in Proteins — N. V. Sedykh and Yu. D. Fel'dman	719	806
Investigation of Aggregation in Disperse Systems Using a Powdered Platinum Electrode — R. V. Sedletskii and V. T. Sibirkova	721	808
Strength of a Catalyst during the Course of Catalysis as a Function of the Conditions of the Formation of Its Structure — S. F. Sudzal'tseva, S. N. Kontorovich, and E. D. Shchukin	727	814
Effect of Metal Oxides on the Interaction between Rubber and Polyhalogen Compounds — T. N. Sudzilovskaya, V. A. Shershnev, and Yu. E. Shapiro	730	816
Effect of the Addition of Surfactants and of a Solid Highly Dispersed Substance on the Moisture Absorption and Structure Formation of Hygroscopic Powders of KCl and NH ₄ NO ₃ — N. B. Ur'ev, V. A. Semenov, M. N. Vaisman, L. P. Vogman, and A. M. Umnyagin	733	819
Diffusion-Controlled Kinetics of the Adsorption of Surface-Active Substances from Solutions — V. B. Fainerman and V. D. Silina	736	822
BOOK REVIEWS		
B. D. Summ and Yu. V. Goryunov. Physicochemical Principles of Wetting and Spreading — Reviewed by S. S. Voyutskii	740	826

Volume 39, Number 5 September-October, 1977

The Development and Growth of Colloid Chemistry in the USSR in the Past 60 Years — The Editorial Board	743	835
Influence of Hydrodynamic Conditions of Mixing on Colloidal Properties of Emulsion Polymerization System — N. P. Zhukov, N. V. Pavlov, and V. I. Eliseeva	748	841

Investigation of Coarse-Pore Aluminum Oxide by Means of Adsorption Techniques and Gas Chromatography - A. V. Kiselev, T. M. Koryavchikova, Yu. S. Nikitin, and I. P. Ogloblina	752	847
Structure Formation in Modified Titanium Dioxide - N. N. Kruglitskii, T. V. T. V. Poltoratskaya, and A. S. Makarov	757	853
Formation of Steady-State Distributions in Coagulating Systems with Disintegrating Particles - A. A. Lushnikov and V. N. Piskunov	760	857
Behavior of Styrene-Butadiene Block Copolymers in Mixtures of Selective Solvents - N. I. Nikonorova, M. Z. Averbukh, N. I. Bystrova, V. A. Kasaikin, Ya. M. Rozinoer, V. P. Shatalov, N. F. Bakeev, and P. V. Kozlov	765	863
Diplophoresis and Electrophoresis of a Spherical Colloidal Particle in the Presence of a Linear Grating of Cylinders - N. M. Semenikhin, É. K. Zholkovskii, and V. A. Bychko	769	869
Theory of Low-Frequency Dielectric Dispersion of a Suspension of Ideally Polarizable Spherical Particles - I. N. Simonov and V. N. Shilov	775	878
Theory of Double-Layer Polarization for a Spherical Particle of Ionite [Ion-Exchange Resin] in an Alternating Electric Field - I. N. Simonov and V. N. Shilov	781	885
Theory of Low-Frequency Dielectric Dispersion of a Suspension of Spherical Particles of an Ionite [Ion Exchange Resin] - I. N. Simonov and V. N. Shilov	786	891
Critical Micellization Concentration and Structure of Nonionic Surfactants - Yu. V. Tanchuk	790	896
Hydrophilic-Lipophilic Balance (HLB) of Colloidal Surfactants, and a New Method of HLB Determination - Yu. V. Tanchuk	794	901
Calculation of the ζ Potential in Electroosmosis Studies on Homogeneous Active Diaphragms in the Light of Changes in Their Parameters during an Experiment - K. P. Tikhomolova	798	906
Investigation of Surface Potentials in Aqueous Surfactant Solutions. 4. Measurement of the Surface Potentials of Alkyltrimethylammonium Bromides and Dodecyldimethylphosphine Oxide Below and Above the Critical Micellization Concentration (CMC) - D. Vollhardt, R. Wüstneck, and G. Kretschmar	802	911
Turbulent Coagulation of Polydisperse Systems with Allowance for the Force Interaction of the Particles - M. S. Shapiro and E. F. Kurgaev	805	916
Heterogeneous Condensation of a Condensable Gaseous Substance in a Cylindrical Channel - Yu. I. Yalamov, E. R. Shchukin, Yu. K. Ostrovskii, and A. N. Ivanov	810	922
BRIEF COMMUNICATIONS		
Effect of Plasticizers on the Thermodynamic Stability of the System Polyvinyl Chloride-Polymethyl Methacrylate - L. V. Adamova, V. A. Ageeva, I. N. Razinskaya, A. A. Tager, and B. P. Shtarkman	813	926
Effect of Thermal and Vacuum Treatment of Phthalocyanine Pigments on the Rheological Properties of Printing Inks - B. G. Aristov, A. F. Vasina, and T. V. Silina	817	930
Spreading of Polymer Droplets over Microporous Surfaces - V. V. Arslanov and V. A. Ogarev	820	934
Apparatus for the Study of the Viscoelastic Properties of Gels and Concentrated Polymer Solutions at Small Constant Shear Stresses - V. G. Vasil'ev, O. A. Kozlov, A. A. Konstantinov, S. K. Krasheninnikov, L. Z. Rogovina, and G. L. Slonimskii	824	938
Properties of Adhesive Layers Adsorbed on the Surface of Polyethylene Terephthalate Films - I. V. Voronin, V. V. Lavrent'ev, and V. I. Grossman	828	942
Effect of Commercial Production Steps on the Properties of Hydrogel Spheroids of Aluminosilicate Catalysts - Zh. F. Gallimov	832	946
Influence of Surfactants on the Degree of Dispersion and Stability of Inverse Water-Polyester Emulsions - E. G. Dubyaga, V. Ya. Zhukova, O. G. Tarakanov, and L. N. Novokreshchenova	835	949
The Influence of Crystallization on the Adhesive and Cohesive Properties of Polyethyleneterephthalate Films - N. I. Egorenkov and V. N. Tsyganok	838	952

Gel Formation in Aqueous Solutions of Alkali Silicates – N. K. Ivanov, A. M. Arbuzov, N. V. Vorontsova, and L. V. Zyryanova	841	955
Determination of Thickness of Interfacial Adsorption Layers of Gelatin by Multiattenuated Total Internal Reflection Spectroscopy – V. N. Izmailova, B. N. Tarasevich, T. F. Busol, and G. M. Pis'mennaya	844	958
Development of Aggregation Process during Storage of Latices after Exposure to Freezing – O. G. Kiseleva, A. V. Lapshova, and R. É. Neiman	846	960
Electrophoretic Deposition of Disperse Tungsten on Graphite in the Presence of Nonionic Surfactants – I. K. Kolesov, M. A. Lunina, and M. A. Khachaturyan	850	964
Calculation of the Elastic Modulus of a Filled Polymer at High Filler Contents – L. B. Kandyrin, V. N. Kuleznev, E. I. Chernin, A. S. Freidin, and S. M. Grinberg	852	966
Interphase Plasticizing of Mixtures of Polymers – V. N. Kuleznev and V. D. Klykova	855	969
Effect of Various Factors on Micelle Formation in the Binary System Sodium Dodecyl Sulfate – Sodium p-Decylbenzenesulfonate – Yu. A. Mirgorod and S. I. Sivakova	857	972
Solubilization of Oleophilic Liquids by Colloidal Solutions of Sodium Alkyl Sulfates – T. D. Mitina, É. F. Korshuk, and Kh. M. Aleksandrovich	861	975
Isotherms of the Interlayer Adsorption of Benzene Vapors on Organoclays – S. Z. Muminov, D. A. Tadzhieva, and É. A. Aripov	864	978
Adsorption at the Gas – Liquid Interface as a Measure of the Hydrophile – Lipophile Balance of Nonionic Surfactants – A. E. Mysak, R. A. Voitova, M. O. Dmitruk, and A. P. Krupskaya	866	981
Infrared Spectroscopic Investigation of the Formation Process of Aluminum Soaps of Monobasic Organic Acids – S. V. Pestrikov, N. V. Rodionova, A. A. Trapeznikov, N. V. P'yankova, and Z. F. Kuz'mina	869	984
Structure of Micellar Solutions of Sodium Monodecyl Succinate – V. A. Ryzhov and L. L. Erokhina	872	987
Hydration of Sodium Monodecyl Succinate Molecules in Micellar Solutions – V. A. Ryzhov and L. L. Erokhina	875	990
Use of a Two-Phase RC Field for Study of the Electrooptical Effect in Disperse Systems – A. I. Sirota and N. G. Khlebtsov	877	992
NMR Investigation of the Nature of the Distribution of Isopropyl Alcohol Molecules Adsorbed onto Magnesium Oxide – S. F. Suzdal'tseva, V. F. Chuvaev, S. I. Kontorovich, and E. D. Shchukin	881	996
Adsorption of Oligobutadienes on to Silica Gel from Carbon Tetrachloride Solutions – I. B. Tsvetkovskii, V. I. Valuev, R. A. Shlyakhter, and T. V. Stadnichuk	883	998
Effect of the Electric Charge of the Surface of a Polymer on Its Interaction with a Liquid Medium – I. M. Tsygel'nyi and A. N. Tynnyi	886	1001
Electrical Conductivity of Highly Aerated Foams – B. E. Chistyakov and V. N. Chernin .	890	1005
Determination of the Specific Surface of Finely Dispersed Ice from the Adsorption of Organic Substances from Solutions – V. I. Fedoseeva, E. A. Nechaev, and and O. A. Strel'tsova	894	1009
Infrared Investigation of the Interaction of Flotation Agents with Clay – A. P. Yanovskaya, Kh. M. Aleksandrovich, N. A. Akulich, and N. S. Ivanova	897	1012
LETTERS TO THE EDITOR		
Attempt to Verify the Theory of the Concentration Polarization of the Double Layer on the Basis of the Electrocoagulation Investigation of F. S. Kaplan and O. G. Us'yarov – S. S. Dukhin	902	1017
Effect of Magnetic Fields on the Rotational Infrared Spectra of Water – S. T. Usatenko, V. I. Morozov, and V. I. Klassen	903	1018

Volume 39, Number 6 November-December, 1977

Two Methods for Development of the Theory of Thermophoresis of Large Aerosol Particles — S. P. Bakanov and V. I. Roldugin	907	1027
Study of Thin Interlayers between Ice and the Surface of Quartz Capillaries — S. S. Barer, B. V. Deryagin, O. A. Kiseleva, V. D. Sobolev, and N. V. Churaev	917	1039
Influence of Surface Condition on Crystallization of Aqueous Solutions in Capillaries — S. S. Barer, O. A. Kiseleva, S. N. Klad'ko, V. D. Sobolev, and N. V. Churaev	921	1045
Thin-Film Capillary Hydrodynamic Method in the Theory of Flotation — B. V. Deryagin, S. S. Dukhin, and N. N. Rulev	926	1051
Capillary Osmosis in Electrolyte Solutions — B. V. Deryagin, M. M. Koptelova, V. M. Muller, and K. P. Tikhomolova	933	1060
A Laser Spectrometer for Submicronic Aerosols — Yu. V. Zhulanov, B. F. Sadovskii, I. A. Nevskii, and I. V. Petryanov	936	1064
Applicability of the DLVO Theory to the Description of the Coagulation of Gold and Silver Iodide Sols by Electrolytes — N. M. Kudryavtseva, A. A. Baran, and B. V. Deryagin	941	1070
Asymptotic Regimes of Coagulation in Systems with an External Source of Particles — A. A. Lushnikov and V. N. Piskunov	945	1076
Imbibition of Aqueous Solutions in Hydrophobic Porous Media — L. N. Maevskaia Z. M. Zorin, and N. V. Churaev	949	1081
Relaxation of Magnetic Birefringence and Dichroism of Ferromagnetic Sols — M. M. Maiorov and A. O. Tsebers	954	1087
Direct Measurements of Disjoining Pressure in Electrolyte Solutions as a Function of Distance between Crossed Filaments — Ya. I. Rabinovich	959	1094
Effect of Bubble Size on the Floatability of Inertial Particles — V. D. Samygin, B. S. Chertilin, and V. P. Nebera	965	1101
Method for Determining the Adsorption Potentials of Ions at a Solution-Solid Phase Interface — M. P. Sidorova and D. A. Fridrikhsberg	971	1108
Thickness of Wetting Films on Rough Substrates — V. M. Starov and N. V. Churaev	975	1112
Rotational Diffusion of Disperse Particles in Strong External Fields — B. A. Storonkin and F. M. Kuni	980	1118
Formation and Stratification of Periodic Colloidal Structures — É. A. Terent'eva, G. M. Lukashenko, and I. F. Efremov	986	1125
Two Methods of Constructing a Theory of the Diffusional Phoresis of Large Aerosol Particles — Yu. I. Yalamov, M. N. Gaidukov, and A. M. Golikov	991	1132
Application of the Gibbs-Duhem Equation to the Derivation of the Electrostatic Component of the Disjoining Pressure — B. V. Deryagin	997	1139
BRIEF COMMUNICATIONS		
Effect of Chemical Reactions on the Kinetics of Capillary Impregnation — M. A. Al'tshuler	1000	1142
Kinetics of the Rupture of Wetting Films — É. E. Voznaya, E. D. Taevere, and O. G. Us'yarov	1002	1144
Deposition of Colloidal Particles Stabilized by Adsorbed Layers of Polymers on Polarized Ionites — V. D. Grebenyuk, T. T. Sobolevskaya, T. V. Kuznetsova, L. M. Dudkina, I. M. Solomentseva, and A. A. Baran	1005	1147
IR Spectra of the Absorption of Water in a Thin Layer between Quartz Plates — G. F. Ershova and I. V. Churaev	1008	1151
Measurement of the Streaming Potential and the Current in a Thin Capillary — Z. M. Zorin, V. I. Lashnev, M. P. Sidorova, V. D. Sobolev, and N. V. Churaev	1012	1154
Study of the Profile of the Meniscus of a Liquid and the Contact Angles by the Method of Differential Interference — Z. M. Zorin	1016	1158
Calculations of Film Flow under the Action of a Temperature Gradient in Conical Capillaries — O. A. Kiseleva, V. M. Starov, and N. V. Churaev	1021	1164

	Engl./Russ.
NMR Investigation of Frozen Solutions — V. I. Kvilividze and M. B. Pylova	1025 1167
Coagulation of Montmorillonite Dispersions in the Presence of Calcium Chloride — M. L. Medvedev, F. D. Ovcharenko, V. V. Mank, and A. G. Brekhunets	1030 1172
Oriented Water Films in a Natural Feldspar Crystal — E. N. Panov and É. A. Lipatova	1034 1177
Elastic Properties of Bilayer Membranes in the Direction Perpendicular to the Membrane Plane — V. I. Pasechnik and T. Gianik	1037 1180
Investigation of the Mechanical Equilibrium of Black Lipid Films in an Aqueous Medium with a Bulk Hydrocarbon Phase — Yu. G. Rovin and V. S. Rudnev	1042 1185
Adsorption of Amino Acids on Montmorillonite — Yu. I. Tarasevich, V. S. Rak, and V. P. Telichkun	1047 1190
Simultaneous Electrophoretic Deposition of Polymer and Electrochemical Precipitation of Metal — Z. R. Ul'berg, Yu. F. Deinega, and V. R. Estrela-Lopez	1051 1195
Stability of Emulsions Formed in the Region of Limited Solubility of the Components in the Water-Heptane-t-Butyl Alcohol System at 20°C — N. P. Fedoseeva, V. M. Kuchumova, L. A. Kochanova, and E. D. Shchukin	1055 1199
Influence of the Intrinsic Structure of Liquid Water on Ice Nucleation in Suspensions and Porous Media — E. V. Filatova and A. O. Filatov	1059 1203
Emission of High-Energy Electrons during Cleavage of Mica Crystals — Yu. A. Khrustalev, N. A. Krotova, and V. A. Klyuev	1063 1208
Influence of Combined Action of Mechanical Vibration and Ultrasound on Highly Filled Epoxy Resin Compositions — V. E. Chernomaz and N. B. Ur'ev	1066 1211
ANNIVERSARIES	
Boris Vladimirovich Deryagin (on his 75th birthday)	1070 1215
INDEX	
Author Index, Volume 39, Numbers 1-6, 1977	1077
Tables of Contents, Volume 39, Numbers 1-6, 1977	1081

